CHAPTER FIVE

RESEARCH RESULT

CHAPTER 5

RESEARCH RESULTS

5.1 INTRODUCTION

Public Bank was founded by Y. Bhg. Tan Sri Dato' Dr. Teh Hong Piew on 1965. It has been listed on the Kuala Lumpur Stock Exchange after about a year ago of commenced business. Today, it has ranked 10th in terms of market capitalization on the Main board of the Kuala Lumpur Stock Exchange. It has emerged as one of the largest of integrated bank group in Malaysia as well as Asean region.

The Public Bank Group's domestic retail operation is currently supported by nationwide network of 213 bank branches and 168 finance branches. It is principally engaged in all aspect of banking, financing, stock broking, and others.

By believing of success is a journey under the leadership of Dr. Teh, the group has dedicated them towards computerized technology, re-engineering its business process, synergies in its operation to enhance corporate competitive and provide the best to its customers. It has created a large scale of investment in information technology.

5.2 THE ORGANIZATION OF THE BANK

The Public Bank's head office is located at Kuala Lumpur, Malaysia. Its staff has increased up to 6,176 personnel in the Bank and 10,513 in the Group today.

The organization of the bank consist of five major business sectors, that are, retail banking division, corporate banking & trade finance division, Islamic banking division, Oversea Operation division and Property division. The aim to separate it into different business sectors is to help Public bank to identify new opportunities and

to allocate resources more efficiently, and to put the right skills and the right capital in the right place.

However, those five business sectors are then supported by a few divisions, namely as, human resource division, legal division, public affair division, credit control & Islamic banking division, Banking operation division, information technology division and credit administration & supervision division. Each divisions are under a General Manager and reports to the President / Chief Executive Officer.

5.3 Product & Services

Public Bank brings a wide array of deposit products designed specifically to meet the customers' individual savings needs. It offers secured savings for customers' money in the vast choices of innovative deposit products ranging from savings and current account products to fixed deposit and investment products catered for people of all ages. The following products and services that offered by Public bank but not limited to: -

	Deposit Product
1.	Plus Saving Account
2.	PB Savelink Account
3.	50 Plus Savings Account
4.	WISE Savings Account
5.	Young Achiever Savings Account
6.	ACE Account
7.	Plus Current Account
8.	Plus CurrentLink Account

9.	Plus Fixed Deposit Account
10.	Fixed Deposit Life Account
11.	PB Golden 50 Account

	Investment Product
1.	PB Balanced Fund
2.	PB Savers Plan

	Services
1.	PB Telebanking
2.	PBeBank.com Internet banking

	Shares & Unit Trust Financing
1.	Instant Share Loan Plan
2.	UNIFLEX Plan
3.	Share Margin Financing

	Loan & Finance Products
1.	Consumers Loan
2.	Commercial Loan
3.	Project Financing
4.	Trade Financing

	Card Products & Service
1.	Public Bank Master Card
2.	Public Bank Visa Card

	Islamic Banking
1.	AL-Wadiah Saving/Current Account
2.	AL-Wadiah Financing

	Cash Management Services
A.	For Collection
1.	Over the Counter Collection Account Service
2.	E- Commerce
3.	Tele-banking
4.	ATM/Giro Service
B.	For Payment
1.	Electronic Credit Payment (ECP)/Payroll Accounts
2.	Bulk Issuance of Cheques (on behalf of customers)
3.	E-Commerce

5.4 THE IT ORGANIZATION

Public Bank has established its own IT group. The size and strategic importance of IT within Public bank is demonstrated by a staff complement of over 6,000.

The IT Group consists of three major areas – IT delivery (e.g. development of central system in retail banking system); IT operations (e.g. business development, service introduction, etc.) and IT support services (e.g. IT strategy planning, IT human resources, etc.). Each area has their own distinct and different functions to be carried out, however, these are interdependence and interrelated. Basically, these functions can be summarized into the following 8 major tasks that performed by various type and level of people, all of whom work closely together for cohesive results:

1) ***IT Systems Delivery:*** responsible for the analysis, design, development, delivery and maintenance of systems for all Public Bank's central and distributed applications.

2) ***IT Central Computer Services:*** manage, controls and co-ordinates operations in a growing grid of mainframe data centers; design, installs and

maintains central hardware and software platforms; plans future requirements and mange change.

3) ***IT Network Service:*** plans, provides and supports high quality network and telecommunications services including the Digital Integrated Network and associated voice and data systems.

4) ***IT Strategy & Policy:*** through formulation of viable policies, research and strategic programmes, ensure a realistic vision of the way IT can support the business economically and innovatively.

5) ***IT Planning & Finance:*** responsible for financial control, and IT Group plan and purchasing.

6) ***IT Personnel:*** this team has the vital role of setting the policies and managing the programmes, which will shape the employee's personal progress, particular training and development.

7) ***IT Account Management:*** a small team of highly skilled managers providing high level interface between business units and IT, ensuring enclose understanding between the two.

The co-operation between the above functions is essential to ensure the success of the IT system in Public Bank as IT will in turn, affect their competitive position in the banking industry.

5.5 COMMITMENT AND AWARENESS ON IT

Public Bank has committed very much on information technology in order to sustain their competitive advantage. It has been very clearly shown on their yearly report as mentioned by Mr. Tan. The following financial summary showed Public Bank allocated fund of their commitment either in IT or others area around eight and nine billion in 2000 and 1999 respectively: -

	Group		Bank	
	2000	1999	2000	1999
INCOME (RM MILLION)				
1. Profit before taxation	1,259.7	838.2	634.1	521.2
2. Profit after taxation but before minority interests	918.9	787.4	456.6	518.4
3. Operating revenue	3,459.3	3,720.1	1,782.5	1,927.9
SELECTED BALANCE SHEET DATA				
ASSETS (RM MILLION)				
1. Total assets	44,234.6	43,237.6	32,305.5	30,898.1
2. Loans, advances and financing	23,400.6	21,618.5	14,473.9	12,970.7
3. Cash and short term funds	6,847.1	7,164.4	6,593.1	6,951.6
4. Dealing and investment securities	6,516.7	9,431.5	3,458.3	6,435.1
5. Investments in subsidiaries and associated companies	39.5	39.8	1,387.9	1,087.9
6. Commitments and contingencies	10,754.9	11,422.5	8,378.1	9,346.1
LIABILITIES (RM MILLION)				
1. Deposits from customers	33,876.8	33,044.4	23,878.3	22,951.2
2. Other liabilities and acceptances payable	1,757.0	2,223.9	1,242.6	1,628.9
3. Shareholders' funds				
- Share capital	1,195.1	1,183.2	1,195.1	1,183.2
- Reserves	3,222.0	2,659.7	2,429.5	2,124.6
- Total	4,417.1	3,842.9	3,624.6	3,307.8
GROWTH RATES OVER PREVIOUS YEARS [%]				
1. Profit before tax	50.3	321.6	21.7	50.3
2. Total assets	2.3	3.1	4.6	1.4
3. Loans, advances and financing	8.2	9.6	11.6	11.8
4. Shareholders' funds	14.9	18.9	9.6	18.5

Source: *Public Bank's Financial Statement, 2000.*

Item	Description	Public Bank		Increased / Decreased (+/- %)	Remark
		2000 (%)	1999 (%)		
1.	IT over Total Asset	25.9	30.25	-14.4	
2.	IT over other investment	172.9	124.2	39.2	

Source: *Public Bank's Financial Statement, 2000.*

The IT expenditure has been decreased about 14.4% from 1999 to 2000 that is because of some of the fund has located for training expenses. However, it has increased 39.2 % comparing IT expenditure than other investment from 1999 to 2000.

5.6 INFORMATION TECHNOLOGY IN PUBLIC BANK

The management of information is the lifeblood of any successful banker. In a large financial institution like Public Bank, the efficiency of its computer operations means the difference between success and failure.

The Public Bank IT division is responsible for managing and developing the technological infrastructure necessary to enable Public Bank and its subsidiaries to provide the best possible service to its customer as per their corporate philosophy. This entails providing not only the computing power to manage millions of customer accounts; but also the vast array of management of information systems necessary to drive such a massive business forward. The following data shown that Public Bank's expenditure in IT: -

Item	Expenditure in Information Technology (RM million)			Remark
	1991 - 1996	1997 - 2002	Increase (%)	
1.	11.39	52.63	362	

Source: *Public Bank's Budgetary, 1991 & 1997.*

Public Bank runs its operation mainly through the data center located at Bangi. All the bank's branches and finance's branches are all linked to its high capacity digital network. Any customers' accounts could be reached through any bank or finance branches in 2000. Therefore, in such merging exercise, the operation would not be really affected since the fundamental network is laid in good planning. Public Bank's merger with Advance Finance Berhad was completed with the transfer of the finance company's business to Public Bank on 31 December 2000. Public Bank also anticipates completing the proposed merger of Public Bank and Hock Hua Bank by the first quarter of 2001 under the terms of the revised merger scheme announced to the Kuala Lumpur Stock Exchange on 26 December 2000. The revised merger scheme will involve the acquisition of the shares of Hock Hua Bank by the issuance of 3.4 new shares in Public Bank for every one Hock Hua Bank share and will result in Hock Hua Bank becoming a wholly owned subsidiary of Public Bank. The banking business of Hock Hua Bank will be transferred and merged with the banking business of Public Bank.

After Public Bank Group interacts on on-line among the branches and finances; Public Bank and Public Finance have decided that officially launched their fully interactive PBeBank.com Internet banking service on 28 June 2001. PBeBank.com represents the Public Bank Group's latest delivery channel in providing direct, real-time access to customers' accounts from any computer connected to the Internet worldwide.

All Public Bank and Public Finance customers can now avail themselves to the convenience and speed of Internet banking by accessing the PBeBank.com online service. Using any secured web browser, the customers will have access to a wide range of financial services via a friendly and intuitive interface. They will be able to conduct balance inquiries, print out detailed financial transactions of their accounts, and transfer funds between their own accounts or to another Public Bank/Public Finance account, pay bills or request for a chequebook. All these services and many

more are only a mouse click away. This is in line with Public Bank and Public Finance's ongoing efforts to bring value-added services to its customers.

PBeBank.com employs a high standard of Internet security measures in order to ensure that all financial information and transactions are fully secured. These measures include a comprehensive suite of security technologies in addition to a multi-layered security infrastructure and full encryption on all transactions to provide end-to-end protection for the customer.

PBeBank.com online banking service complements the Group's other existing electronic banking services such as ATM and PB Telebanking. By providing value, convenience and security through PBeBank.com, Public Bank and Public Finance aspire to make PBeBank.com 'The Preferred Online Banking Services' in the industry.

It's Information System Service (ISS) also played a fundamental part in establishing the banking's money transmission accounts and continues to have a very significant role as these accounts are developed further in an ever changing marketplace. ISS is a database that able to handle millions of account and different types of products and services.

Overall, the main objective of Public bank in IT is to work along with their corporate philosophy and mission and carry out a carefully planned strategy to meet the challenges and exploit the opportunities presented in the marketplace.

5.7 THE STRATEGIC MANAGEMENT OF IT PROJECTS

5.7.1 The general issues on IT

The interview with the IT Division's director, Mr. Tan Teck Kong begins with the general issues on IT. Mr. Tan defined IT as the major area of the bank and has played a supporting role to the business. He further suggested that IT is a key factor in creating strategic advantage in a competitive marketplace in the present period and also in the future.

Top management at Public bank were aware of the competitive advantage resulting from IT projects that had implemented both from an external (customer) viewpoint and an internal (organization) perspective. They understood that additional benefit will be gained from the development of IT and it will improve efficiency and facilitate the flow of information across the company.

As understanding, Public bank is always preparing it self to response quickly to whatever actions that might be taken by their contemporary. However, the competitive advantage created from technology can never be sustained long. This is due to everyone are able to do what you can do. The organization should remain its strategic policy i.e. plotting growth, integrating jobs, thinking through products, motivating people etc. Then, it will out front others in the same industry.

5.7.2 Top management briefing

The IT's opportunities are basically can be identified by anyone in the organization. It can come from IT manager, Marketing manager, suppliers who working closely with Public Bank, and sometimes the opportunities are exploited by the customers.

According to Mr. Tan, the top management's decision to launch an IT project led to involving several employees from different levels in the project. The steering committee and the project are formed for each IT project. The size of the project

team is depending on how large the investment and how long it needs to complete. People involved, therefore varies from 6 persons to 200 persons.

The steering committee consisted of the CEO and all fist-line directors. They are to ensure the IT systems are aligned to business goals and will support the company's overall strategy. The goals of this strategic decision process were two fold: first, to analyze the current business situation and to improve the understanding of what the company actually doing in order to generate profits; second, to increase awareness of the project. The ultimate objective is to create a board commitment for the subsequent steps. Therefore the major duties of the committee is to monitor the progress of the entire project, validated the results, and give general guidelines. Finally, the committee will decide whether to approve the project or should further investigation be carried out or just abandon it. If approve, it will then delegate to the project team for implementation.

5.7.3 Corporate strategy

The corporate strategy and mission of Public bank is "*To emerge as the most efficient, profitable and respected financial institution in Malaysia.*" It means that the bank is tended to become an appreciated the time factor involved, provided the most valuable of investment and respected financial institution in Malaysia.

Once again, Mr. Tan restated that the existence of IT in the organization is to support the organization to achieve their objectives. IT strategy should therefore incorporate into company's corporate strategy, i.e. working towards the direction of the organization.

From the point of view of Mr. Tan, IT strategy is just one of the aspect of the overall corporate strategy. It needs to complement business strategy; marketing strategy; finance strategy; and human resource strategy. He further insists that the close integration of all the facets of strategy is very important to the success of corporate strategy. To be successful, it involves considerable management skills, not least the ability to comprehend how all the activities of the firm inter-related.

Regarding the questions of how IT strategy links with business strategy, Mr. Tan said, IT strategy should always drives the business and aimed for sustaining the competitive advantage. Annual review on IT strategy is conducted to ensure it is matching or consistent with business strategy. He further stressed that the strategy framework is essential for linking with business strategy. The IT strategy framework integrates in two relevant dimensions.

First, the concept of strategy formulation calls for a perspective that cuts across the boundary of the organization, matching capability (an aspect of the organization context) with opportunity or threats posted by the environment (an aspect of the environmental context). In the second dimension, i.e. within the organization context, the concept of strategy implementation requires the translation of higher-level strategic abstractions into more concrete and implemental terms. It is this aspect of strategy that gives shape to the organizational context. The twin concepts of formulation and implementation might be the basis for the development of a theory of the linkage between organizational context and environmental context.

In short, the concept of a technological strategy provides the necessary integrated and integrative framework for viewing Public Bank's technology within the context of its general business orientation. Therefore, their managers have been always notified that to take seriously the identifying their company's technological strategy.

In answering the question whether corporate strategy ever change to follow IT strategy, Mr. Tan said, although IT do change the way business running, it always act as a supporting role to ensure Public bank doing the best in whatever it attempts. Thus, it is very rare that corporate strategy will change to match with IT strategy, although he does not denied the possibilities.

5.7.4 Organization structure

As mentioned in the literature part, technological change within business organizations involves a complex set of interactions between the management

process, technology and organization structure. The implementation of IT will, in large extent, affect the organization structure. This has agreed by Mr. Tan in relating to Public bank.

The major changes that faced by Public bank when implement an IT project are basically, people, responsibilities, priorities etc. He contends that the organizational changes were expected in advance, but not formally planned. He further cautions that what really matter is not the change, but is the following after the change.

5.7.5 IT strategy formulation & Implementation process

According to Mr. Tan's point of view, IT Strategy formulation is a learning process in which the strategist has to constantly reacts to the environment, which he or she may have imperfectly understood before, or which has in the meantime undergone change. In addition, IT investment usually in a large scale in term of time and money, and people are involved. Therefore, IT strategy should be deliberate instead of emerge in Public Bank. Although there is widespread evidence of unsuccessful IT strategies, organization still need to plan ahead for the IT investment and adjustment should be made whenever appropriate.

Sometimes, Public bank's strategy can be viewed as a pattern of resource deployments, it follows that strategy formulation can be viewed as a series of resource allocation decisions. These decisions would include:

1. Choosing the geographic regions in which to market a firm's products.
2. Selecting the appropriate technology to employ in products.
3. Selecting distribution channels, and perhaps deciding to let them compete with one another.
4. Deciding whether specific products should be manufactured or sourced externally.

Each of these strategic decisions can be directly translated into the allocation of capital, facilities, and people. When aggregated, the pattern of these decisions should be congruent with Public bank's strategic intentions. Even if they are not,

however, it is Public bank's resource allocation decisions rather than its written plans that determine its success in the market place. The strategy that counts is the pattern of behavior, not the pattern on the paper.

Strategy formulation implies a strong emphasis on top-down planning whereas research into successful innovation indicates the need for a bottom-up orientation. These two requirements can be reconciled if an innovative management consciously attempts to weld together these two streams of communication (*Twiss, 1992*). However, Public bank is still applying top-down planning as usual. Nevertheless, it did encourage for a bottom-up orientation as a view for checking with the top-down planning.

In strategy formulation, an analysis is made of the trends taking place in the social, economic, political and technological environments. This analysis leads to an identification of the business threats or opportunities they are likely to give rise to. There are usually a number of alternative strategies, which might be feasible, but the optimum will only emerge by comparing what might be possible with the organization's ability either to meet the threats or exploit the opportunities.

The strategy instills a sense of purpose in senior management decision-making and should be a major consideration in deciding the level of investment in IT. It also facilitates the formulation of coherent and consistent guidelines for operational management. But failure to translate the corporate plan into decision-making at all levels will nullify its purpose. Yet there is a great deal of evidence to suggest that this occurs frequently, particularly in relation to investment in technological innovation in Public bank.

The decision-making process adopted by Public bank is to follow the combination of rationality, learning process and contingency model. In questioning about the applicability of rationality in practice, Mr. Tan asserted that there is impossible to exercise pure rational in decision-making process as long as political perspective is existed. It will affect the decision-making process as conflict occurred and it makes it difficult to sell the decision.

In fact, in its most basic form, the rational model of choice follows the everyday assumption that human behavior has some purpose and will act rationally to achieve this purpose. It is clear that people are only bounded rational, the power wins battles of choice, and that chance will then affects the course of strategic decision-making. With a synthesis of bounded rationality and political perspectives it provides a compelling description of strategic decision-making.

Rationality Vs bounded rationality

There is no single theory of bounded rationally, but rather many variations. A number of variations that affect the extent of rationality in strategic decision-making have been put forward by some strategy scholars (*Eisenhardt & Zbaracki, 1992*). Based on their view and Public Bank's situation, the author has summarized it into **four** main variations.

The first variation is the objective criteria which explains a significant amount of variance in strategic decision-making. According to Huff and Reger (1987), in rational model, strategic decision-making involves a series of sequential, rational, and analytical processes whereby a set of objective criteria is used to evaluate strategic alternative. However, Mr. Tan argued that this rational normative model is quite deterministic. While they may be some choice, the process is designed to narrow strategic alternatives to the best one or at least, a small feasible set. Therefore, the choice is highly constrained and is guided by a rational process.

He further argued that strategy, once determined, often placed constraints on future strategic alternative considered. Due to the limitation of information, top executive tend to simplify the decision process by limiting the criteria considered and by weighing some criteria more heavily than others.

Most current advocates of the rational normative perspective realize that strategic decisions are not without constraints, both environmental and individual. For example, Bourgeois (1984) argued that a theory of organizational functioning must

account for the possibility of reciprocal causation among external factors, strategic decisions and internal organization factors. The external control perspective suggests that the success of strategic decisions is largely determined by characteristics of the external environment. Organization theorists such as Duncan (1972); Lawrence and Lorch (1969) proposed that environment turbulence and uncertainty has major effects on organizational functioning. Therefore an organization's potential for survival and superior performance is dependent on the match or fit between organizational design variables and environmental demands. Based on these premises, the second variation that will influence the degree of rationality in strategic decision-making is the environmental factors.

Human factors or personal characteristics are the third variations in rational strategic decision process. The works of Hambrick and Manson (1984) suggest that the human factors also affect the strategic choices made. This has been highlighted and agreed by Mr. Tan. Thus they need to take into account of all these factors when they make strategic decisions. They further argued that executives do not follow a totally rational model in making strategic decision. Furthermore, they may not interpret industry information correctly or utilize all relevant and available information. Thus introduction of human choice into strategic decision-making alters the strategic process. Factors such as executive's age, educational background, work experience; managers' level in the firm, the ability to differentiate the behavior of other individuals (cognitive Complexity) and risk orientation will influence the strategic process.

Without taken into account of behavioral factors is the limitations of each step of the rational model. Goals are unclear and shift over time. People often search for information and alternative haphazardly and opportunistically. Analysis of alternatives may be limited and decisions often reflect the use of standard operating procedures rather than systematic analysis.

Finally, the most recent variation of the rational model is rearrangement and repetition of the model. The model rearranges its pieces to allow repetition and variety in their order (*Mintzberg et al. 1976; Nutt 1984, Hickson et al 1986*). This work recognizes that decisions have unique patterns of solution. In the classical

rational model of choice, those stages in the model occur sequentially, but in Mintzberg et al's study, these phases have no sequential relationship. The result is that steps in a rational strategic decision process actually shift, branch, cycle and recycle. Any planning strategy that is rigidly linear or sequential in character has only limited applicability. It works for simple problems, but that is all. As for complex and meta-problems both require strategies that entail a succession of actions rather than a single solution and may require "doubling-back" in the strategy in order to account for "new developments" or other surprises.

Political perspective

The roots if the political perspective on strategic decision-making lies in the view that decisions were the result of a process in which decision makers have different goals, they come together through coalitions, and the preferences of the most powerful triumph. People are individually rational, but not collectively so. The key assumption is that organizations are coalitions of people with competing interest and more often their interest is conflicting. These conflicting preferences arise from different bets on the shape of the future, biases induced by position within organization, and clashes in personal ambitions and interest.

According to Mr. Tan, the heart of the political perspective is the process by which conflict is resolved among individuals with competing preferences and the decisions will follow desires and subsequent choices of the most powerful people.

After this discussion with Mr. Tan, we can then conclude that rationality is multidimensional, and so strategic decision makers are rational in some ways, but not others. What is rational clearly depends on what you are trying to accomplish. The rational approach to finding an optimum (i.e. solving a simple problem) is not the same as the rational approach to making improvements (i.e. dealing with complex problem).

There is no one universal type of strategic decision-making model that can be adopted by the organization to formulate strategies efficiently and effectively. It is a

question of choosing the most appropriate for the issue at hand. Technological change interacts with organizational culture and managerial ideology to shape the firms' specific technological development and opportunities. Therefore, Public bank needs more that the rational model to explain and guide its choice for an adaptive technological strategy.

In the end, we have to recognize that decision involve judgment as well as technique. Whenever decision-making occurs, it occurs in response to an identified problem or opportunity and it require judgment. That in turn puts limits on how far you can expect to be able to deal with it (its maximum feasible solution) and what is the rational way to do so. Decision makers are seen as adjusting their rationality in complex way, rather than blindly and uniformly being more or less rational. Thus, it is not just the mastery of specific techniques that makes a good decision maker. He said that the key to success in decision-making lies in balancing what you really want and need with the ways and means actually available for achieving it.

He then further stressed that the ultimate objectives of the decision are to ensure the business benefits achieved, concern with long-term success and fits with other development in technology. Therefore the decision-making process should base on this ultimate objective.

The development stages/phases of the IT system is normally follow a formal approach as following stages:

1. System Architecture;
2. System Design;
3. System Development;
4. System Implementation;
5. Testing & Commissioning;
6. Training, and
7. Support

This formal development is always a guide only and the approach would be based on how large is the project.

Training has been regularly conducted in Public Bank Training Centre at Bangi. This is to help their staff to cope with the new equipment or environment and enhance their knowledge.

In the recent project, the following data shown that the expenditure of training staff in 1999: -

Item	Expenditure of Training in 1999 (RM '000)				Remark
	Jan – Mar	Apr – Jun	July – Sep	Oct – Dec	
1.	604	586	447	410	

Source: *Public Bank's Financial Statement, 1999.*

This IT system should closely relate to the business process, restated by Mr. Tan again. Therefore, the IT project should only based on the concept of what business wants and no other purposes.

5.7.6 IT Evaluation

By taking a management or Mr. Tan's perspective, evaluation is about establishing by quantitative and/or qualitative means the worth of IT to the organization. Evaluation brings into play notions of costs, benefits, risk and value. It also implies an organizational process by which these factors are assessed, whether formally or informally (*Willcocks, 1992*).

For competitive reasons, Public bank cannot afford not to invest in IT, but economically they cannot find sufficient justification, and evaluation practice cannot provide enough underpinning for making the investment.

There are major problems in evaluation as highlighted by Mr. Tan. A more fundamental and all too common failures are in not relating IT needs to the

information needs of the organization. This relates to the broader issue of strategic alignment. One result of such lack of alignment is that IT evaluation practice tends to become separated from business needs and plans on the one hand, and from organizational realities that can influences IT implementation and subsequent effectiveness on the other. Both need to be included in IT evaluation.

Furthermore, management attention has tended to fall on the "technology" rather than the "information" element in what is called IT. It would seem to be difficult to perform a meaningful evaluation of IT investment without some corporate control framework establishing information requirements in relationship to business goals and purposes, prioritization of information flow need to be managed.

Basically, there are two important aspects in IT evaluation that are, the feasibility of IT investment and the justification of expenditures.

The right "strategy climate" is a vital prerequisite for evaluating IT projects at their feasibility stage. Organizations have found it increasingly difficult to justify the costs surrounding the purchase, development and use of IT. The value of IT investments are more often justified by faith alone, or perhaps understating costs and using mainly national figures for benefit realization.

Because many other organizations today still manage their information expenditures as an expense rather than an asset, they often make IT decisions based on arbitrary, intuitive judgments rather than on solid, well-thought-out justification.

Today, return-on-investment (ROI) is the only factor used in the justification approach in Public bank, which may look at expenditures too narrowly. A justification approach that goes beyond ROI is needed if an organization truly wishes to maximize the value of their technology expenditures.

Such an approach should consider all factors relevant to the technology investment decision. These factors run the full gamut from very objective, quantitative measures to very subjective, qualitative measures or a combination of both. Weighted

considerations such as business fit (supports goals and critical success factors), economics (payback and ROI), intangibles (soft, subjective benefits), technological (hardware/software applicability, people skills), and achievability (success/failure indicators) are vital consideration to an effective IT evaluation process.

The major concerns seem to be to relate evaluation techniques to the type of IT project, and to develop techniques that relate the IT investment to business/organization value. It also included risk assessment in the evaluation procedures for IT investment.

As describe by Willcocks (1992), a method of evaluation needs to be reliable, that is, consistent in its measurement overtime, able to discriminate between good and indifferent investments, able to measure what it supposes to measure, and be administratively/organizationally feasible in its application.

The structure of the project management is depending on the size and nature of the project. Due to the size of investment in IT project, payback is often using as the screening approach in evaluating IT investments. Others such as return on investment (ROI), cost on capital, etc. also use as an evaluation method. Normally, in Public bank, a five years period of time are expected to get back the return on investment.

5.7.7 Management of change

5.7.7.1 Understanding change

Before exploring how to manage change, one need to understanding the forces of change occur in implementing IT strategy in Public bank.

Change can be viewed as the alteration from one state to another, for example IT has change most of the activities previously manually carried out to fully automated.

Change basically can be differentiate into two types, i.e. planned change and unplanned change (*Peppard & Steward, 1993*).

Planned change is that change which is intentional and goal oriented and deemed necessary to sustain competitiveness. This change can be managed through innovation, restructuring, reshaped strategy, skills, culture and technology of Public bank. It involves unfreezing the current status quo, movement to a new state, and refreezing the new change to make it permanent.

While unplanned change occurs spontaneously and emerges unpredictably from a situation. It cannot be managed. However, this change is not necessarily have negative consequences, sometimes it can lead company come out with new strategies and products when the unforeseen changes forced the company seek new "ways to do things".

The implications of planned changes arising from the applications resulting from the IT strategy can be identified. They included changes to job design and responsibilities, changes in human resources management including new skills development and training and changes in the organization's structure.

The introduction of new technology can have many consequences. Typically, as routine tasks become automated, people are being freed up. Some may take on more varied and challenging tasks, for example when a printer using new technology gets involved in design and layout rather than just printing. New skills are required but these skills becoming obsolete more quickly as technology develops. Job design must change to reflect new roles and responsibilities. Individuals become more specialized, and routine jobs may be replaced by work teams whose members can perform multiple tasks and actively participate in team decisions.

These are tangible changes. Other, subtler changes such as the impact on worker satisfaction, motivation, and job commitment are also likely to accompany the introduction of planned changes. In practice both planned and unplanned changes are likely occur in implementing the IT strategy. A well-managed change program will

aim to anticipate and minimize the negative consequences yet maximize the benefits of new information technologies by preparing the "groundwork" for them.

5.7.7.2 Resistance of change

IT system used for strategic purposes are likely to cause significant changes in an organization. Organizations are social systems that involved people and this critical human dimension must not be neglected. Any process of change will involve people and it is likely that the changes will affect them in some way. If these changes are not recognized there is every chance that a perfectly sound end product will fail because the people involved do not know how to exploit it.

This has further supported by Peppard and Steward (1993) that people play a critical role in managing the change effectively. The pivotal role of people in the linkage between strategy, organization, business process and technology is illustrated in figure 5.1.

- Strategically – by setting the direction of the organization towards a vision of the future.
- Organizationally – by providing the environment where ownership is accepted by people within the organization.
- Business processes – to ensure that operations positively support and improve day-to-day business and the quality of service to customers.
- Technically – by making the most of current technology while building an architecture for future developments.

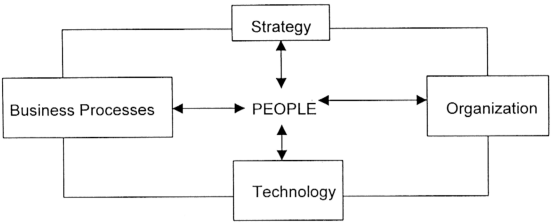

Figure 5.1 Managing organizational change through people

Source: Peppard, J., 1993, pg 276.

However people have a habit of being human, i.e. unpredictable. Such erratic behavior has to be anticipated. Although, change may have positive effects and is not always resisted, there are usually some reasons why people do not fully support a change. Resistance is adverse reaction to a proposed change. People feel that a change from the status quo will affect their ability to have control in their lives. These "knock on effect" of change must be recognized, overcome and replaced by motivational reasons for supporting the change and making it happen.

There have been many reasons that caused people resist to change. According to Mr. Tan, a summary for the general possible sources of resistance has been selected.

1. The need for change is not understood.
2. Fear of the unknown.
3. Lack of information about what is intended and how it will affect individuals;
4. A feeling that the change will pose a threat to the competence of the individual – am I capable of learning and change?
5. A threat to status.
6. A threat to the established power base of the individual.
7. No perceived benefit in taking on all the hassle.

8. Fear of failure.
9. Reluctance to take any chances – I manage fine as I am.
10. Custom bound – we have done it this way for years and it works so why upset a good thing?
11. Lethargy caused either by the inertia of an organization which is not particularly innovative or by peer groups or unions who are generally resistant to change.

This has further extended by Peppard & Steward (1993) that the degree of resistance of change depends on the kind of change involved and how well it is understood and the degree of actual or perceived disruption, which is likely to accompany that change. The uncertainty, which accompanies a major change initiative, has a major bearing on the level of resistance to change.

Therefore, a prime objective in managing change is to ensure that resistance is reduced and does not become a major barrier to achieving the planned goal.

However, the organization that set up for more than 30 years, to certain extent, has created a culture that suitable for change. As highlighted by Mr. Tan, no doubt that the organization tried to design in such a way that easy to implement change without significant affect on their employees.

5.7.7.3 Managing the process of change

Management of change must recognize all the factors that affect the change to be managed successfully and understanding the motivational forces at play and making it all happen as planned. To manage change successfully, managers have to do more than just recite vaguely constructed ideas about changing economic and competitive conditions. They must put focused and systematic strategies into place to fit specific change conditions.

Project planning and control is a systematic approach to the management of change. This covers such topics as structuring the project, planning the work, working to plan,

exception management, reporting systems and control mechanisms. However, the behavioral aspect of the change process must also take into consideration.

To overcome resistance to change a carefully planned implementation approach is needed which will ideally bring about a change in people's attitudes as well as behavior. Yet there are a number of issues and how these are addressed will have significant impacts on the direction of change, the degree of cooperation, and ultimately whether or not change is likely to be successful.

As mentioned by Mr. Tan, one of the ways to reduce resistant to change is to attempt to change people's attitudes about the change process through better communication and education. This is to ensure the perception of individuals is same as the company's direction as the perception of an individual will significantly determine their degree of change.

Gaining commitment from people is essential for IT strategy to be implemented successfully. It is important to let people to involve in change at the earliest possible stage as this is likely to produce more commitment and permanence. At this stage there is a feeling that if a proposition is unacceptable it may be changed. If there are opportunities to provide input to the process you may be able to sell some of your own ideas. It is commitment rather than compliance that will reduce the resistance to change.

Training needs to be provided to enhance people's ability to cope with the new environment and thus reduce the fear of unknown. Trainers can be used as a tool for implementation, and an appropriate initiative can do a number of very positive things (*Hussey, 1988*).

1. A very clear understanding can be gained, of both the broad strategy and what it means to the individual in his or her job;
2. Commitment can be built, as people discover the reason for the strategy and decide for themselves that there is sense behind it;

3. The implication of implementation can be explored and converted into personal action plans;
4. Appropriate training can be given so that the appropriate individuals are able to implement the strategy.

Managers have considerable power in an organization to shape the direction and extent of change. New systems necessitate business people and technologists pooling their collective expertise and energies into a common need to manage the entire process of change. Therefore, line management must be completely aware of the process being undertaken and their role in its successful achievement.

New IT systems often mean new ways of doing business, different information for making decisions, new ways for people to communicate and different ways of managing and organizing. All these elements are part of the process of change. These, more than the software and technological innovations, are the elements of the project, which must be recognized and controlled by line managers.

However, it is powerful tool for senior management to make decisions in relation to IT and its contribution to the business. These decisions need to be made thoroughly, with full understanding of the organizational consequences. They also need to be explicit and communicated throughout the organization as the basis of subsequent IT decisions.

The organization's culture is also a critical successful factor for implementing IT strategy. If an organization have a same belief and an unified set of values towards the importance of IT for the company, then it will make IT strategy translate into action more easily than if not. The culture differences, in organizational context, will signify the potential for conflict and can pose obstacles to communication.

5.7.8 BARRIERS OF IMPLEMENTATION

When undertaking large IT projects in a large, and usually bureaucratic organization, there are at least four hypothesized categories of organizational obstacles, namely,

bureaucratic complexity, personality conflict, technical complexity, and acute resource scarcity (*Jin, 1993*). These barriers can impose major constraints on IT projects implementation in Public bank.

Bureaucratic Complexity

In a large organizational setting, system professionals connected with IT projects are often concerned about the stifling impact of bureaucratic tendencies and practices. The central concern of bureaucracy is the communication links or information flows within the organization. Communication distorted because of hierarchical divisions; inadequate means for resolving differences and conflicts among ranks and, most particularly, among functional groups; and under utilization of the full human resources because of such conditions as mistrust and fear of reprisals. The decision-making process delay due to partially lack of speedy and open communications between the project management staff and the upper level management and between the user groups and IT professionals. Other dysfunctional consequences on IT projects due to bureaucracy are lack of integration between middle management and upper management. This may affect the degree of user commitment necessary for the change effort.

Personality Conflict

Personal conflict in an IT project situation results from the fact that project participants' personalities sometimes not compatible. In some cases, IT systems participants' behavior style may be formalistic, domineering, task-oriented, and authoritarian; in other cases, their behavioral orientation may be flexible, relationship-oriented, and democratic. Sometimes personality conflict is aggravated by the fact that project participants, possessing different personalities, do not share perceptions of each other's roles and common goals and objectives. In a large organization, it is difficult to achieve inter group collaboration and mutually supportive relationships as too many people with different personalities are involved.

Technical Complexity

The capability of the project participants is influenced by the rapidly advancing technology. It takes time for users to learn the new techniques and too often, the development in IT is too fast to cope by the user.

Acute resource scarcity

An organization often suffers from acute resource scarcity. This scarcity may originate from budget constraints, lack of qualified manpower, lack of technical capability, and lack of time. Under the circumstances, the top management is usually reluctant to invest excessive resources in a long run IT project, and it tends to be interested in seeing quick, visible returns from the resources expended in an IT project on a short run basis.

There are many approaches used to overcome or minimise the barriers of implementation. One of the approaches that applicable in Public bank is to use the critical success factor (CSF) approach.

However, as understanding, the biggest of the barrier of implementation IT is financial problem.

5.7.9 CRITICAL SUCCESS FACTORS

Critical success factors are events, conditions, circumstances or activities that if they are satisfactory, will ensure successful competitive performance for the organization. Thus, critical success factors relate to the basic internal of external conditions for the firm's strategy (e.g. customer acceptance, competitive moves); or those competencies or resources (e.g. human, financial) it must attain (*Jenster, 1987*).

Using the CSF approach, the IT system is designed based on a set of a few selected critical success factors at a time and in a priority sequence. This development method would commit less resources per systems project; it would deliver the

expected IT project benefits to management much sooner than if the conventional long-drawn systems development life-cycle approach was used.

As suggested by Mr. Tan, different IT applications may require different emphases and therefore an understanding of these differences is vital for successful implementation. CSFs can also be assigned to applications in the portfolio. The concept of critical success factors for applications in the applications portfolio in Public bank is illustrated as figure 5.2.

Strategic	**High Potential**
Distribution system EDI Geographic Information system	Expert systems Imaging
Key Operational	**Support**
MRP system Billing system Production planning system Stock control system	Accounting system Word processing Electronic mail

Figure 5.2 IT applications in the portfolio

Source : *Lambert, R., 1993, pg 256 – 259.*

High potential applications

The objective here is to develop a system in order to evaluate a new business idea or technological opportunity. Therefore the CSFs of this application are both the capability to cope with the rapid evolution of technology and the evaluation of business, technological ad economic issues, particularly the potential contribution to organization objectives.

Strategic applications

The objective is to gain competitive advantage from innovation in support of business strategies. In order to sustain competitive advantage, company has to be flexible enough to response quickly in today rapid changes environment. Therefore, the CSFs of this application are to gain business competitive and efficiency against their competitors, maintain a flexible structure to cope with changes, always innovative to meet customers' need and continuous review to monitor the market reaction and competitor activity.

Key operational applications

The objective here is to provide effective systems to support existing customer critical activities and avoid disadvantages in performance relative to competitors. The CSFs therefore are the ability to provide a reliable, high quality and technical efficient systems, which will enable the appropriate solution to business problems.

Support applications

The objective of support applications is to improve productivity and efficiency in relation to the internal activities of the organization. As far as internal activity is concern, the major concern is both to minimize the cost (e.g. maintenance and user costs) and to enhance the flexibility in use, which in turn, become the CSFs of this applications.

Senior management of Public bank always reviews the applications to ascertain if these applications are complying with the above CSFs. Any shortfalls need to be highlighted and organizational consequences determined.

5.7.10 Future trends

Last but not least, the interview with Mr. Tan is ended with the question on the future impact of technology on Public bank's business. He thinks IT will still carry an important role in shaping the banking's industry and it will always be the key factor to sustain competitive advantage. In the future, Public bank will do whatever IT can do

to improve their customer service. The investment in IT will always be the main focus of Public bank in supporting their organization's operation.

5.7.11 Conclusion

The analysis of the strategic management of IT at Public Bank indicates that IT has played a critical role in sustaining organization's competitive advantage and business performance in the banking industry.

In this research, the Public bank's ability to exploit information technology for strategic purposes, can be explained in terms of quite a complex interaction between the organization's strategy, structure and process. IT strategy provides a framework for the detailed use of IT in the organization and it should support the corporate strategy. Organization structure needs to be change to fit the strategies and this restructuring or re-engineering will involve different level of people and other resources. Therefore, a proper management of this process is required. In order to ensure the process manage successfully, one needs to be thinking strategically.

In essence, top management must think differently and strategically i.e. to see things in a more broader way and more proactive in exploiting opportunities. The more the manager know about the outside world, the market in which he operates, and the needs his customers, the better equipped the manager to make sound management decisions. This is even important when the environment is changing rapidly. However, it is no good thinking strategically unless those thoughts are captured, and then applied to the benefit of the enterprise. Therefore, thinking about information and thinking about business must go hand in hand. And that thinking should lead to a business strategy and a related IT strategy. All the strategies decisions of Public bank are mainly based on business point of view. Hence, all IT strategies is business-centered and not technology-led. Overall, Public bank can be seen as business or market driven rather than technology driven.